

AMENDMENTS TO THE CLAIMS

CLAIM 1 (PREVIOUSLY PRESENTED): A bicycle power supply comprising:
a first storage element structured to receive power arising from an AC power supply for supplying power to a first electrical component of the bicycle; and
a second storage element structured to receive power from the AC power supply for supplying power to a separate second electrical component of the bicycle.

CLAIM 2 (ORIGINAL): The power supply according to claim 1 further comprising a power inhibiting unit structured to prevent power from being communicated from the first storage element to the second electrical component.

CLAIM 3 (ORIGINAL): The power supply according to claim 2 wherein the power inhibiting unit is structured to prevent power from being communicated from the second storage element to the first electrical component.

CLAIM 4 (ORIGINAL): The power supply according to claim 1 further comprising a rectifier circuit that converts AC current received from the AC power supply into DC current, wherein the rectifier circuit is operatively coupled to supply power to the first storage element and to the second storage element.

CLAIM 5 (CURRENTLY AMENDED): The power supply according to claim 4 further comprising a reverse current inhibiting unit operatively coupled between the first storage element and the second storage element to inhibit current from flowing from one of the first storage element and the second storage element to the other one of the first storage element and the second storage element to preserve a voltage at the one of the first storage element and the second storage element when current is drawn from the other one of the first storage element and the second storage element.

CLAIM 6 (ORIGINAL): The power supply according to claim 5 wherein current flows from the first storage element to the second storage element.

CLAIM 7 (ORIGINAL): The power supply according to claim 6 wherein current flows from the first storage element to the second storage element through the reverse current inhibiting unit.

CLAIM 8 (ORIGINAL): The power supply according to claim 7 further comprising a power switch unit that selectively switches current from the rectifier circuit to the first storage element in response to a voltage of the first storage element.

CLAIM 9 (ORIGINAL): The power supply according to claim 7 wherein the reverse current inhibiting unit comprises a diode.

CLAIM 10 (ORIGINAL): The power supply according to claim 7 wherein the first and second storage elements are structured to provide power to the first and second electrical components such that the first electrical component has a higher capacitance than the second electrical component.

CLAIM 11 (ORIGINAL): The power supply according to claim 10 wherein the first storage element is structured to provide power to a mechanical adjusting mechanism.

CLAIM 12 (ORIGINAL): The power supply according to claim 10 wherein the second storage element is structured to provide power to a microprocessor.

CLAIM 13 (ORIGINAL): The power supply according to claim 5 wherein the first and second storage elements receive current from the rectifier circuit in parallel.

CLAIM 14 (ORIGINAL): The power supply according to claim 13 wherein the reverse current inhibiting unit comprises:

a first reverse current inhibiting circuit operatively coupled between the rectifier circuit and the first storage element; and

a second reverse current inhibiting circuit operatively coupled between the rectifier circuit and the second storage element.

CLAIM 15 (ORIGINAL): The power supply according to claim 14 wherein the first reverse current inhibiting circuit comprises a first diode, and wherein the second reverse current inhibiting circuit comprises a second diode.

CLAIM 16 (ORIGINAL): The power supply according to claim 13 further comprising a power switch unit that selectively switches current from the rectifier circuit to at least one of the first storage element and the second storage element.

CLAIM 17 (ORIGINAL): The power supply according to claim 16 wherein the reverse current inhibiting unit comprises the power switch unit.

CLAIM 18 (ORIGINAL): The power supply according to claim 16 further comprising a voltage stabilizing circuit coupled to at least one of the first storage element and the second storage element.

CLAIM 19 (ORIGINAL): The power supply according to claim 16 wherein the power switch unit comprises:

- a first power switch circuit that selectively switches current from the rectifier circuit to the first storage element; and

- a second power switch circuit that selectively switches current from the rectifier circuit to the second storage element.

CLAIM 20 (ORIGINAL): The power supply according to claim 19 wherein the reverse current inhibiting unit comprises a diode coupled between the power switch unit and at least one of the first storage element and the second storage element.

CLAIM 21 (ORIGINAL): The power supply according to claim 19 wherein the reverse current inhibiting unit comprises:

- a first diode coupled between the first power switch circuit and the first storage element; and
- a second diode coupled between the second power switch circuit and the second storage element.

CLAIM 22 (ORIGINAL): The power supply according to claim 19 wherein the first power switch circuit selectively switches current from the rectifier circuit to the first storage element in response to a voltage at the first storage element, and wherein the second power switch circuit selectively switches current from the rectifier circuit to the second storage element in response to a voltage at the second storage element.

CLAIM 23 (ORIGINAL): The power supply according to claim 16 wherein the first and second storage elements are structured to provide power to the first and second electrical components such that the first electrical component has a higher capacitance than the second electrical component.

CLAIM 24 (ORIGINAL): The power supply according to claim 23 wherein the first storage element comprises:

- a first split first storage element; and
- a second split first storage element.

CLAIM 25 (ORIGINAL): The power supply according to claim 24 wherein the power switch unit comprises:

- a first power switch circuit that selectively switches current from the rectifier circuit to the first split first storage element; and
- a second power switch circuit that selectively switches current from the rectifier circuit to the second split first storage element.

CLAIM 26 (ORIGINAL): The power supply according to claim 25 wherein the reverse current inhibiting unit comprises:

- a first diode coupled between the first power switch circuit and the first split first storage element; and
- a second diode coupled between the second power switch circuit and the second split first storage element.

CLAIM 27 (ORIGINAL): The power supply according to claim 25 wherein the first power switch circuit selectively switches current from the rectifier circuit to the first split first storage

element in response to a voltage at the first split first storage element, and wherein the second power switch circuit selectively switches current from the rectifier circuit to the second split first storage element in response to a voltage at the second split first storage element.

CLAIM 28 (ORIGINAL): The power supply according to claim 25 wherein the first split first storage element and the second split first storage element are structured to provide power to at least one mechanical adjusting mechanism.

CLAIM 29 (ORIGINAL): The power supply according to claim 28 wherein the first split first storage element is structured to supply power to a transmission adjusting mechanism, and wherein the second split first storage element is structured to supply power to a suspension adjusting mechanism.

CLAIM 30 (ORIGINAL): The power supply according to claim 29 wherein the second storage element is structured to provide power to a microprocessor.

CLAIM 31 (ORIGINAL): The power supply according to claim 23 wherein the second storage element comprises:

- a first split second storage element; and
- a second split second storage element.

CLAIM 32 (PREVIOUSLY PRESENTED): The power supply according to claim 31 wherein the power switch unit comprises:

- a first power switch circuit that selectively switches current from the rectifier circuit to the first split second storage element; and
- a second power switch circuit that selectively switches current from the rectifier circuit to the second split second storage element.

CLAIM 33 (ORIGINAL): The power supply according to claim 32 wherein the reverse current inhibiting unit comprises:

- a first diode coupled between the first power switch circuit and the first split second storage element; and

a second diode coupled between the second power switch circuit and the second split second storage element.

CLAIM 34 (ORIGINAL): The power supply according to claim 32 wherein the first power switch circuit selectively switches current from the rectifier circuit to the first split second storage element in response to a voltage at the first split second storage element, and wherein the second power switch circuit selectively switches current from the rectifier circuit to the second split second storage element in response to a voltage at the second split second storage element.

CLAIM 35 (PREVIOUSLY PRESENTED): The power supply according to claim 32 wherein the first split second storage element is structured to provide power to a microprocessor.

CLAIM 36 (ORIGINAL): The power supply according to claim 35 wherein the second split second storage element is structured to provide power to a sensor element.

CLAIM 37 (ORIGINAL): The power supply according to claim 36 wherein the first storage element is structured to provide power to a mechanical adjusting mechanism.